

Title (en)
POWER CONVERSION DEVICE

Title (de)
STROMUMWANDLUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE CONVERSION D'ÉNERGIE

Publication
EP 3681029 B1 20221019 (EN)

Application
EP 17924336 A 20170908

Priority
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Abstract (en)
[origin: EP3681029A1] A power conversion apparatus comprises, a converter 31 that receives a three-phase AC power supply 1 and outputs a DC voltage, an inverter 32 that is connected to the output of the converter 31 and drives the AC motor 5 via the output switch 4, a power switch 6 for directly driving an AC motor 5 from the AC power supply 1, a current detector 12 for detecting the output current of the inverter 32, a voltage detector 14 and a current detector 13 for detecting the voltage and current of the power supply system on the input side of the converter 3, respectively, and a control unit 7 for controlling the three-phase output voltage of the inverter 32 based on the voltage command of three phases. The control unit 7 includes a vector control unit that performs vector control of the AC motor 5 and a synchronous incorporation controller 83. The synchronous incorporation controller 83 switches to operate the inverter 32 as a reactive power controller for the power supply system after closing the power switch 6 to synchronize the AC motor 5 with the AC power supply 1.

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